



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,042	08/19/2004	Robert T. Uthe	014682.000008	5041
44870	7590	02/19/2008		
MOORE & VAN ALLEN, PLLC For IBM			EXAMINER	
P.O. Box 13706			ANDREWS, LEON T	
Research Triangle Park, NC 27709				
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			02/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/711,042</p>	<p>Applicant(s)</p> <p align="center">UTHE, ROBERT T.</p>	
	<p>Examiner</p> <p align="center">Leon Andrews</p>	<p>Art Unit</p> <p align="center">2616</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date <u>11/24/2004</u>.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application</p> <p>6) <input type="checkbox"/> Other: _____</p> |
|--|---|

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-36 are rejected under 35 U.S.C. 102 (b) as being unpatentable by **Richter et al.** (Pub. No.: US 2002/0194251 A1).

Regarding Claims 1, 8, 12 and 33, Richter et al. discloses a method (methods, paragraph [0009], page 2, line 1) and a computer-readable medium (read queue allows read requests to be stored and accessed, paragraph [0127], page 13, lines 11-15) having computer-executable instructions (Fig. 19, computer executable instructions) to evaluate utilization of a plurality of resources (Fig. 5, 115, evaluate request to identify resources required) linked by segments (Fig. 2, resources 250, segments 205, 210, 215, 220, 225, 230, 275), comprising:

tracking a sequence (TCP sequence number processing, paragraph [0109], page 11, line 3) of utilization (transport engine performs sequence processing, segmentation, reassembly, acknowledgement, retransmission and flow control tasks, paragraph [0109], page 11, lines 2-5) of the plurality of resources (tracking resource utilization in relation to resource utilization

Art Unit: 2616

thresholds, paragraph [0020], page 4, lines 14-16) in responding to a request (Fig. 19, request 6105) or a set of requests; and

determining and representing a quantity of occurrences (Fig. 19, request is evaluated to identify the required resources 6115, and the occurrences are repeated until the condition at 6200 is met) of each segment linking a pair of resources (Fig. 1A, system 1060, application 1070) in the sequence (TCP sequence number processing, paragraph [0109], page 11, line 3); and

) determining and representing a time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since each resource in the sequence (TCP sequence number processing, paragraph [0109], page 11, line 3) was last utilized (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8).

Regarding Claims 2, 11, 14 and 35, Richter et al. discloses the method (methods, paragraph [0009], page 2, line 1) and computer-readable medium (read queue allows read requests to be stored and accessed, paragraph [0127], page 13, lines 11-15) having computer executable instructions (Fig. 19, computer executable instructions), further comprising:

means (Fig. 1A, content delivery system 1010) as in **Claim 21**, for representing each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined symbol (Fig. 1A, network 1030, storage 1040, transport 1050, system 1060, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2); and

means (Fig. 1G, network 1030) as in **Claim 21**, for representing each segment between resources by a line (Fig. 1G, 1023) between corresponding resource symbols (Fig. 1G, network 1030),

wherein each line has a selected line width (Fig. 12, bandwidth for a connection, paragraph [0007], page 2, line 12) corresponding to the quantity of occurrences (Fig. 19, request is evaluated to identify the required resources 6115, and the occurrences are repeated until the condition at 6200 is met) of the segment in responding to the request (Fig. 19, request 6105) or set of requests.

Regarding claims 3 and 34, Richter et al. further teaches determining a time duration since each resource in the sequence was last utilized (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8).

Regarding Claims 4, 22, 27 and 32, Richter et al. further teaches:

means (Fig. 1A, counter delivery system 1010) for representing each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined symbol (Fig. 1A, system 1060, storage 1040, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2); and

means (Fig. 1A, network 1010) for representing each resource symbol at a predetermined level (Fig. 1A, 1030A, 1040A, 1050A, 1060A, 1070A) or degree of translucency corresponding to a time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since the resource corresponding to the resource symbol

was last utilized (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8).

Regarding claim 5, Richter et al. discloses the method (methods, paragraph [0009], page 2, line 1) of claim 1, further comprising:

representing each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined resource symbol (Fig. 1A, network 1030, storage 1040, transport 1050, system 1060, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2); and

presenting each resource symbol at a predetermined level (Fig. 1A, 1030A, 1040A, 1050A, 1060A, 1070A) or degree of translucency corresponding to a number of times the resource was utilized in responding to the request (Fig. 19, request 6105) or set of requests.

Regarding claims 6, 7, 17 and 23, Richter et al. discloses the continuing to sequentially store the resource identification, segment or path information between sequential resources and time of access for each resource in the sequence until one of a predetermined time period expires (request has expired via the expiration of automatic timer or client termination, Paragraph [0518], page 61, lines 17-18), the sequence is completed (Fig. 19, put request in dispatch queue 6260), the request or set of requests is satisfied (Fig. 19, dispatch request 6270), or a request (Fig. 19, receiving a request for content 6105, paragraph [0518], page 61, lines 3-4) for a resource utilization diagram (Fig. 18) is received.

Regarding claims 9, 15, 16 and 36, Richter et al. representing each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined resource symbol (Fig. 1A, network 1030, storage 1040, transport 1050, system 1060, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2) and wherein representing a time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since each resource was last utilized comprises presenting each resource symbol at a predetermined level (Fig. 1A, 1030A, 1040A, 1050A, 1060A, 1070A) or degree of translucency corresponding to the time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since the resource was last utilized (Fig. 5, 120, poll resources required to process request to determine availability).

Regarding claims 10, 13 and 25, Richter et al. further comprising representing in a resource utilization diagram (Fig. 18) the quantity of occurrences of each segment linking resources in the sequence (Fig. 19, request is evaluated to identify the required resources, 6115, and the request is kept in the queue, 6220 and the process is repeated (occurrences) until the condition, 6200 is met).

Regarding claim 14, Richter et al. discloses the method (methods, paragraph [0009], page 2, line 1) of claim 12, further comprising:

representing each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined resource symbol (Fig. 1A,

Art Unit: 2616

network 1030, storage 1040, transport 1050, system 1060, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2); and

representing each segment by a line between (Fig. 1G, 1023) the resource symbols corresponding to the pair of resources (Fig. 2, resources 250), wherein each line has a selected line width (Fig. 12, bandwidth) corresponding to the quantity of occurrences of the segment in responding to the request (Fig. 19, request 6105) or set of requests.

Regarding Claims 18 and 28, Richter et al. discloses a system (systems, paragraph [0009], page 2, line 1) and method (methods, paragraph [0009], page 2, line 1) to evaluate utilization of a plurality of resources (Fig. 5, 115, evaluate request to identify resources required) linked by segments (Fig. 2, resources 250, segments 205, 210, 215, 220, 225, 230, 275), comprising:

a processor (Fig. 3, processors 21-24);

a resource utilization program (Fig. 7, application program 1150, 1160) operable on the processor, wherein the resource utilization program includes: computer executable instructions (Fig. 19, computer executable instructions) to track a sequence (TCP sequence number processing, paragraph [0109], page 11, line 3) of utilization of the plurality of resources (tracking resource utilization in relation to resource utilization thresholds, paragraph [0020], page 4, lines 14-16) in responding to a request (Fig. 19, request 6105) or set of requests; and

computer executable instructions (Fig. 19, computer executable instructions) to determine a quantity of occurrences (Fig. 19, request is evaluated to identify the required resources 6115, and the occurrences are repeated until the condition at 6200 is met) of each segment linking a pair of resources (Fig. 1A, system 1060, application 1070) in the sequence (TCP sequence

Art Unit: 2616

number processing, paragraph [0109], page 11, line 3).

Regarding claims 19 and 29, Richter et al. discloses the system (systems, paragraph [0009], page 2, line 1) and method (methods, paragraph [0009], page 2, line 1), wherein the resource utilization program comprises computer executable instructions (Fig. 19, computer executable instructions) to generate a resource utilization (Fig. 19, identify resources required 6115) representation including a representation of the quantity of occurrences (Fig. 19, request is evaluated to identify the required resources 6115, and the occurrences are repeated until the condition at 6200 is met) of each segment linking resources (Fig. 2, resources 250) in the sequence (TCP sequence number processing, paragraph [0109], page 11, line 3).

Regarding claims 20 and 30, Richter et al. discloses the system (systems, paragraph [0009], page 2, line 1) and method (methods, paragraph [0009], page 2, line 1), wherein the resource utilization program comprises computer executable instructions (Fig. 19, computer executable instructions) to generate a resource utilization representation (Fig. 19, identify resources required 6115) including a representation of a time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since each resource in the sequence (TCP sequence number processing, paragraph [0109], page 11, line 3) was last utilized (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8).

Art Unit: 2616

Regarding Claim 21, it is the corresponding system claim to method and computer-readable medium **Claim 2**. Therefore, it is rejected for the same reasons explained above.

Regarding claim 24, Richter et al. discloses a system (systems, paragraph [0009], page 2, line 1) to evaluate utilization of a plurality of resources (Fig. 5, 115, evaluate request to identify resources required), comprising:

- a processor (Fig. 3, processors 21-24);
- a resource utilization program (Fig. 7, application program 1150, 1160) operable on the processor, wherein the resource utilization program includes: computer executable instructions (Fig. 19, computer executable instructions) to track a sequence (TCP sequence number processing, paragraph [0109], page 11, line 3) of utilization of the plurality of resources (tracking resource utilization in relation to resource utilization thresholds, paragraph [0020], page 4, lines 14-16) in responding to a request (Fig. 19, request 6105) or set of requests; and
- computer executable instructions (Fig. 19, computer executable instructions) to represent a time duration (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8) since each resource was last utilized (estimated time until the availability of adequate resources to a request, paragraph [0223], page 24, lines 6-8).

Regarding claim 26, Richter et al. discloses the system (systems, paragraph [0009], page 2, line 1) of claim 24, further comprising: computer executable instructions (Fig. 19, computer executable instructions) to represent each resource (Fig. 1A, representation of components of a content delivery system, paragraph [0032], page 5, lines 1-2) by a predetermined resource

Art Unit: 2616

symbol (Fig. 1A, network 1030, storage 1040, transport 1050, system 1060, application 1070, representation of components of a delivery system, paragraph [0032], page 5, lines 1-2); and computer executable instructions (Fig. 19, computer executable instructions) to represent a segment between each pair of resources (Fig. 2, resources 250, segments 205, 210, 215, 220, 225, 230, 275) in the sequence by a line (Fig. 1G, 1023) between resource symbols corresponding to the pair of resources (Fig. 1A, system 1060, application 1070), wherein each line has a selected line width (Fig. 12, bandwidth) corresponding to a quantity of occurrences (Fig. 19, request is evaluated to identify the required resources 6115, and the occurrences are repeated until the condition at 6200 is met) of the segment in responding to the request (Fig. 19, request 6105) or set of requests.

Regarding Claim 31, it is the corresponding method claim to method and computer-readable medium **Claim 2**. Therefore, it is rejected for the same reasons explained above.

Citation of Pertinent Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jackson et al. (Pub. No.: US 2002/0152305 A1) discloses systems and methods for resource utilization analysis in information management environments

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2616

LA/la

January 29, 2008

LA

Seema S. Rao
SEEMA S. RAO 2/14/08

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000